

ABSTRACT OF THE DISCLOSURE

The present invention provides a semiconductor device such as a multi-valued flash memory or the like, which is capable of shortening a processing time required to set write control information to a sense latch. The semiconductor device is capable of electrically writing multi-value information therein. Bit lines are connected to the right and left input/output terminals of a sense latch, and data latches are connected to the respective bit lines. A decoder is provided which decodes write data supplied from outside to thereby generate write control information. The write control information is latched in each of the sense latch and data latches, and the latched control information is set as information indicative of go/no-go of the application of a write voltage, which corresponds to each value in a multivalued. A write operation based on the data latched in the sense latch is first controlled, and the write control information for the sense latches are internally transferred from the data latches in turn subsequently and successively write-controlled.